

In The News

Hon'ble Prime Minister Shri Narendra Modi Launches India's First Hydrogen Fuel Cell Vessel Catamaran

The catamaran is a zero-emission ship demonstrating India's prowess in sustainable marine technologies.



Hon'ble Prime Minister of India and President of CSIR, Shri Narendra Modi, launched India's first indigenously designed and built hydrogen fuel cell-powered

passenger Catamaran on 28 February 2024 in Cochin. This catamaran is a zero-emission ship demonstrating India's prowess in state-of-the-art sustainable marine technologies.

The vessel was built and tested by the Cochin Shipyard Ltd in collaboration with multiple partners. Pune-based KPIT Ltd built the drive train for the catamaran, including the hydrogen fuel cell. The fuel cell technology was developed and demonstrated under the CSIR-NMITLI Industry Originated Programme, in which KPIT collaborated with CSIR-NCL and CSIR-CECRI to successfully demonstrate Low-Temperature PEM fuel cell technology.

NMITLI is a unique initiative promoting industry collaboration with R&D labs and academic institutions to develop globally benchmarked yet affordable indigenous technologies.

The initial know-how and experience in fuel cells developed by the CSIR labs have been enhanced and engineered by KPIT for Marine, Defence and Automotive applications.

The fuel cell technology was developed and demonstrated under the CSIR-NMITLI Industry Originated Programme, in which KPIT collaborated with CSIR-NCL and CSIR-CECRI.

Hon'ble Dr Jitendra Presides over MoU Signing Event at CSIR-IIIM



CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu, entered into an understanding with National Highways Authority of India (NHAI), Anphar Laboratories (P) Limited, JK Aroma Farmers Producer Cooperative Limited and Himalayan Essential Oils Producer Company Limited (HEOPCL) and signed Memoranda of Understanding (MoUs) with them on 16 March 2024. Hon'ble Union Minister of State (Independent Charge) Science &

Technology; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space and Vice President CSIR, Dr Jitendra Singh graced the event as the Chief Guest.

Dr Jitendra Singh lauded CSIR-IIIM's efforts for its new initiatives to work with industries and agri-entrepreneurs jointly and also emphasised the importance of such collaborations between institutions, public sector enterprises, and private companies in driving innovation



and economic growth in the region. He said exchanging MoUs marked the beginning of mutually beneficial partnerships fostering innovation, economic development, and societal impact.

He highlighted CSIR-IIIM's commitment to advancing research and technology to address the evolving needs of society and industry. He credited the Institute with signing MoUs with different institutions ranging from Industry to government and featuring societal and agri-entrepreneurship. He expressed his satisfaction that throughout the last decade, farmers who were reluctant to grow lavender have become industrialists and are in a position to employ others.

He also appreciated Dr Zabeer Ahmed, Director, CSIR-IIIM and his entire team for supporting Jammu and Kashmir's economic progress through technology and finance. Earlier, in his welcome address, Dr Zabeer Ahmed, Director, CSIR-IIIM mentioned that CSIR-IIIM, besides doing cutting-edge science, is equally involved in the societal mission programmes and activities, having a national developmental impact. "Signing of MoUs among CSIR-IIIM, NHA, Industry and Agri-entrepreneurs is a testimony to the Institute's resolve to work for inclusive

economic development and support product development through strong collaboration with the industry", he added. Further, he gave a detailed account of the scope of MoUs signed today.

With the NHA, the Institute is collaborating to carry out a lavender plantation on NH 44 from Ramban to Banihal, aimed at sustainable environmental practices and advancing highway infrastructure development.

In another MoU, signed between CSIR-IIIM and Anphar Laboratories (P) Limited, the emphasis is on developing methods for API synthesis, key starting material and drug intermediates. CSIR-IIIM's partnership with JK Aroma is focused on animal studies on herbal products to provide scientific validation for traditional knowledge. In contrast, the MoU with Hindustan Essential Oils Co. Pvt. Ltd (HEOPCL) is for extending Aromatic crops, which would benefit farmers. It is pertinent to note that CSIR-IIIM's efforts towards extending aromatic crops, such as lavender, have changed the economic landscape of Baderwah by fostering various agri-startups.

Er Abdul Rahim, Chief Scientist & RMBD&IST Division, presented the formal vote of thanks.

Dr Jitendra Singh lauded CSIR-IIIM's efforts for its new initiatives to work with industries and agri-entrepreneurs jointly and emphasised such collaborations' importance.

Dr N Kalaiselvi, DG CSIR, Visits CSIR-NIScPR

Dr N Kalaiselvi inaugurated the newly constructed main gate of the Institute and chaired the SVASTIK Monitoring Committee Meeting.



DG-CSIR, Dr N Kalaiselvi said, "Utilising a comprehensive array of tools and cutting-edge data technologies, CSIR-NIScPR is poised to develop innovative software solutions or transformative tools, facilitating efficient communication."



Dr. N. Kalaiselvi, Director General of CSIR and Secretary of DSIR Inaugurated the Main Gate of CSIR-NIScPR at the Pusa Campus on 21 March, 2024

The CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi, celebrated the inauguration of its main gate at its Pusa Campus on 21 March 2024. Dr N Kalaiselvi, Director General of CSIR and Secretary of DSIR, inaugurated the ceremony.

In her welcome address, Prof. Ranjana Aggarwal, Director, CSIR-NIScPR, discussed the

various recent initiatives of the Institute, saying, "The CSIR-NIScPR has taken up several initiatives in recent times. Establishing the Science Media Communication Cell (SMCC) was a pivotal step towards streamlining the dissemination of R&D breakthroughs across Indian labs. Creating a single window for this purpose was crucial, and SMCC has excelled in fulfilling this role. National Knowledge Resource Consortium and SVASTIK are other



very promising initiatives of the Institute.”

Highlighting the achievements of the Institute, Dr Kalaiselvi said, “CSIR-NIScPR is fostering connectivity among all labs, spearheading the efforts of its SMCC. As a testament to its success, the S&T column will now be prominently featured in the *Employment News* (a popular publication of the Ministry of I&B), marking a significant milestone in the dissemination of science towards the public, especially youth. By engaging with our S&T column in the *Employment News*, job seekers can also become job creators in the days to come.”

Dr Kalaiselvi added, “Utilising a comprehensive array of tools and cutting-edge data technologies, CSIR-NIScPR is poised to develop innovative software solutions or transformative tools, facilitating efficient communication and collaboration across scientific domains while advancing research dissemination and outreach efforts.”

Concluding the inaugural ceremony, Dr Sujit Bhattacharya, Chief Scientist, CSIR-NIScPR, presented the vote of thanks.

The institute hosted the monitoring committee on the same day to communicate India’s scientifically validated traditional knowledge to society, branded SVASTIK (Scientifically Validated Societal Traditional Knowledge). Dr N Kalaiselvi chaired the meeting.

Prof. Ranjana Aggarwal welcomed the eminent experts and delivered her introductory remarks on SVASTIK activities. Coordinator SVASTIK, Dr Charu Lata, gave a detailed update on SVASTIK activities and its digital footprint through her presentation. During the meeting, the second volume of the book SVASTIK Stories: Indian Traditional Knowledge through the Lens of Science and a special issue of the Indian Journal of Traditional Knowledge on Communication & Dissemination of Traditional Knowledge were also released.

Members of the monitoring committee appreciated the initiatives and suggested measures for communicating and disseminating Indian traditional knowledge across various domains. The meeting ended with a vote of thanks by Dr Paramananda Barman, Scientist, CSIR-NIScPR.

Prof. Ranjana Aggarwal, Director, CSIR-NIScPR, discussed the various recent initiatives of NIScPR, stating that establishing the Science Media Communication Cell (SMCC) is a pivotal step towards streamlining the dissemination of R&D breakthroughs across Indian labs.

CSIR-CCMB Inks MoU with BFI-Biome Network to Advance the Ecosystem in the Frontiers of Biomedical Innovation



The partnership aims to aid the acceleration of the translation of research discoveries into real-world life sciences solutions.

CSIR-Centre for Cellular and Molecular Biology (CSIR-CCMB) has allied with Blockchain For Impact (BFI) on 10 April 2024, under the BFI-Biome Virtual Network Program to accelerate biomedical research and innovation in India.

BFI-Biome Virtual Network Program is a pioneering initiative bringing together research institutes and incubators under one umbrella to foster stakeholder collaborations. Under this programme, BFI will allocate over 600,000 USD during the course of three years and leverage the state-of-the-art facilities and expertise at CCMB to support interdisciplinary and collaborative translational research projects of biomedical science and innovation.

CSIR-CCMB is committed to providing research and training

in the most cutting-edge areas of biology and facilitating centralised national access to the most modern techniques in the interdisciplinary areas of biology. CSIR-CCMB also promotes biomedical research endeavours in tandem with the BFI-Biome vision that cuts across traditional boundaries by encompassing both upstream and deep science, driving innovation that leads to transformative health solutions. This environment will encourage the exchange of ideas, network building, and the sharing of valuable experiences. This partnership aims to aid the acceleration of the translation of research discoveries into real-world life sciences solutions.

Dr Vinay Nandicoori, Director, CCMB, other scientists from the Institute and representatives from BFI, including Dr Gaurav Singh,

CEO; Dr Pooja Agrawal, Programme Director; and Dr Satya Prakash Dash, Senior Advisor, graced the launch event held at Hyderabad.

Mr Sandeep Nailwal, Founder of BFI, expressed his excitement about CSIR-CCMB joining the BFI-Biome Virtual Network Program. With a dedicated USD 15 million programme for advancing biomedical research and innovation in India, the BFI-Biome initiative integrates both upstream and deep science, fostering an environment that drives innovation, leading to transformative healthcare outcomes. This programme aims to bring together leading researchers, technologists, and innovators to collaborate and innovate to drive the next generation of interventions for improved healthcare.

Dr Gaurav Singh conveyed his pleasure about the partnership, stating, “This partnership is exciting for BFI as it aligns perfectly with our vision for advancing research and innovation, ensuring that the benefits reach those who need them the most. As a catalyst funder, our commitment goes beyond financial support. We are working towards addressing critical gaps in India’s healthcare sector through our two verticals – biomedical research and innovation, district full-stack partnerships, and process-driven innovation funding and support. The BFI-Biome Virtual Network Program is a significant step in this direction.”

Dr Pooja Agrawal highlighted the potential impact of the collaboration, stating, “By creating the BFI Biome Virtual Network,

we hope to bring partners from different sectors to develop long-term solutions through biomedical innovation. Our partnership with CSIR-CCMB is important for this effort. By leveraging the expertise at CSIR-CCMB, the goal is to accelerate the translation of scientific discoveries into impactful healthcare solutions.”

Dr Vinay Nandicoori expressed his delight, stating, “We are excited about this partnership, which would allow us to attempt projects with sound science and translational value. We hope the outcomes from these projects would benefit India’s healthcare needs at large.”

Dr Satya Prakash Dash reflected upon the achievements of CSIR-CCMB, stating, “BFI is extremely glad to partner with CSIR-CCMB, one of the top institutions in the country for biomedical research. We hope that through support to cutting-edge biomedical research at CSIR-CCMB, we would be able to accelerate translation for the benefit of society and alleviate healthcare challenges that we face.”

This partnership of CSIR-CCMB with BFI marks a significant milestone in the BFI-Biome Network Program’s ongoing efforts to advance biomedical research and innovation in India. The organisations will leverage new-age technologies in core life-sciences research to foster innovation and co-develop a resilient healthcare ecosystem.

The partnership of CSIR-CCMB with BFI marks a significant milestone in the BFI-Biome Network Program’s ongoing efforts to advance biomedical research and innovation in India.

CSIR-NIO and Department of Fisheries, Govt of Odisha Signs an MoU



An MoU was signed between CSIR-National Institute of Oceanography (CSIR-NIO), Goa, and the Department of Fisheries, Government of Odisha, by Prof. Sunil Kumar Singh, Director, CSIR-NIO, Goa and Md Sadique Alam (IAS), Director, Department of Fisheries, Govt of Odisha, in the presence of Shri Suresh Kumar Vashishth (IAS), Principal Secretary ARD, Govt of Odisha.

The collaboration was part of the state-sponsored event 'Matsya-Pranee Samavesh Odisha-2024',

a three-day programme held at Bhubaneswar from 16-18 February 2024. The MoU is the initiation of a programme for the development and deployment of artificial reefs along the Odisha coast to promote marine fisheries and biodiversity. This project will be implemented under the Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme at approximately INR 29 crores. The project shall be executed via a multidisciplinary scientific approach by CSIR-NIO.

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Events

The 3rd BELMONT Forum COAST Card workshop

CSIR-National Institute of Oceanography, Goa, at the International Centre, Dona Paula, Goa, organised the third BELMONT Forum COAST Card (Coastal Ocean Assessment for Sustainability and Transformation) workshop/meeting in Goa on 5 and 6 February 2024. The workshop had deliberations and invited talks by officials from different departments of the Goa Government, Goa Medical

College, Goa Waste Management Corporation, Biodiversity Management Committees, Schools and Colleges.

The workshop was inaugurated by the Hon'ble Minister for Water Resources, Goa, Shri Subhash Shirodkar, in the presence of Director CSIR-NIO, Dr Dattesh Desai, Project Leader for COAST Card, Goa, and Dr Lidita Khandeparker, Co-Project Leader.



The workshop participants deliberated on the coastal ocean assessment for sustainability and transformation and brought out report cards. This is an international effort under BELMONT FORUM and is a collaborative effort between Japan, Norway, the Philippines, the USA, and India. The participants included different stakeholders from Goa. In the inaugural address, the Hon'ble Minister stated that we must encourage wide and intense engagement of all stakeholders to achieve the needed actions for sustainable development and conservation. He added that a two-way dialogue between the researchers and the society at large will pave the way for the development of policies.

The participants deliberated on the mechanisms to evolve report cards in the context of waters

around Goa. Participants from the USA, Japan, the Philippines, and Norway provided in-depth information on their case studies and methods for developing report cards. The workshop elaborated on the case scenarios on the water budget of Mahadayi, climate change impact in Goa, Estuarine ecosystem functioning, Relevance of changing environment on community health, State Fisheries policies of Goa, Climate change and wildlife. The workshop had active participation from students of different schools and colleges as well as research students from CSIR-NIO. The workshop facilitated the participation of students and other stakeholders in an open house discussion through a novel approach to identifying values and threats important to different stakeholders in promulgating different sustainable practices.

Hon'ble Minister for Water Resources, Goa, Shri Subhash Shirodkar, stated that we must encourage wide and intense engagement of all stakeholders to achieve the needed actions for sustainable development and conservation.

CSIR-IHBT Opens Tulip Garden for Public

The garden is also the first tulip garden in the state.

Developed under the CSIR-Floriculture Mission, the mesmerising Tulip garden at CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur was opened for the public on 02 February 2024 at its premises by

Dr Sudesh Kumar Yadav, Director, CSIR-IHBT, Palampur.

Tulips are tuberous cut flowers that have huge international and domestic demand. It ranks third in the world's top cut flower trade. Under the mission, the Institute



CSIR-IHBT also started experimental trials on flower and bulb production of tulips in the Lahaul valley of Himachal Pradesh for commercial cultivation.

has planted these beautiful flowers on its premises for the last two years. The garden is also the first tulip garden in the state.

This year, fifty thousand tulip bulbs of 6 varieties of various vibrant colours have been planted in the garden. After its opening, the garden is expected to attract many visitors from within and outside the state, promoting scientific tourism. Last year, over 70,000 visitors from across the country visited this exquisite tulip garden. This time, a far higher number of visitors is anticipated. On the opening day, under the Jigyasa programme, more than 200 students and 12 teachers from Kendriya Vidyalaya, Bhanala (HP) visited the garden.

However, CSIR-IHBT also started experimental trials on flower and bulb production of

tulips in the Lahaul valley of Himachal Pradesh for commercial cultivation. To begin with, several farmers from cooperative societies such as Yaani Mahadev Floriculture Society, Madagran; Pattan Valley Floriculture Society Limited, Shansha; and Tinan White Mountain Floriculture Society Limited, Jangla, were trained and empowered to cultivate tulips. They are now engaged in tulip cultivation for bulb and flower production and are reaping benefits.

The Institute is also making a significant endeavour to offer new opportunities for attractive income generation to entrepreneurs and farmers who cultivate these flowers and make India self-reliant in tulip bulb production to meet the country's domestic demand.

CSIR-IMTECH Celebrates Four Decades of Microbial Exploration Journey

CSIR-Institute of Microbial Technology (CSIR-IMTECH), Chandigarh, celebrated its 40th Foundation Day on 24 January 2024 by organising several events, including the much-anticipated Foundation Day Lecture. Prof. Renu Vig, Vice Chancellor, Panjab University, delivered this year's

foundation day lecture on "Impact of Technology on Society" and highlighted the importance of technologies shaping humankind's lives.

Prof. Vig, with teaching and research experience of more than 35 years, highlighted the positive impacts of using technology in

society & how technologies have reinvented business design, manufacturing processes and distribution channels. During her lecture, she touched upon vital aspects of technology through wireless & satellite communication, space programmes, nuclear programmes, infrastructure, automobiles and Industry 4.0 and how they have evolved. Prof. Shantanu Bhattacharya, Director, CSIR-CSIO, also graced the event to commemorate the 40-year celebration of CSIR-IMTECH's foundation.

Dr Sanjeev Khosla, Director, CSIR-IMTECH, while welcoming the guests and faculty to the Institute's 40th foundation day, apprised the audience of the Institute's achievements during the last forty years. He gave a brief snapshot of the four decades journey of CSIR-IMTECH, from what started as a make-shift laboratory in a warehouse to a sprawling 47-acre campus in Chandigarh. He also lauded the efforts of scientists and researchers who have built strong peer credibility in basic and application-oriented broad thematic areas of molecular biology and microbial genetics, cell biology and immunology, protein science and engineering, fermentation technology and applied microbiology. He exhorted the scientific fraternity at CSIR-IMTECH to focus on future & niche research areas, including the microbiome and AMR, with a particular focus on non-model pathogens, nanobody engineering, precision fermentation and bioremediation.



Dr Sanjeev Khosla, Director, CSIR-IMTECH, felicitating Prof. Renu Vig, Vice Chancellor, Panjab University, on IMTECH Foundation Day

Dr Khosla highlighted the translational efforts of CSIR-IMTECH scientists that have resulted in a higher rate of technology transfer to the industry of the total filed patents. Dr Khosla said at the occasion, "Surely, we have come a long way, but one thing that has remained common in the last 40 years has been our commitment & resolve towards addressing unmet healthcare and industrial needs through microbial interventions & with state-of-the-art processes and platforms."

As part of the celebrations, CSIR-IMTECH conducted a series of conferences on basic & fundamental research in microbiology, sustainable microbial technology for biomolecule production & microbial ecology. An event was also organised to celebrate CSIR-IMTECH's scientific legacy with its alumni who have made a mark in the country and around the globe.

The institute also observed Open Day, during which students, researchers, graduates and

Prof. Renu Vig, VC, Panjab University, during her lecture, highlighted the importance of technologies shaping humankind's lives.

the general public from in and around Tricity visited the Institute and interacted with scientists to get a firsthand account of various facets of microbiology and biotechnology. The Institute

also felicitated its students for the best PhD thesis, best PhD presentation and best poster presentation award 2024 with a certificate and cash award for their outstanding performances.

CSIR-NIScPR Celebrates its Foundation Day

CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi, celebrated its foundation day with a dynamic event showcasing a commitment to advancing science communication, STI policy research, innovation, and research. Under Prof. Ranjana Aggarwal's directorship, the Institute marked the occasion with significant events and collaborative endeavours.

Prof. Yogesh Singh, Vice Chancellor of the University of Delhi and Member of CSIR Society, was the Chief Guest of the Foundation Day Programme on 9 February. Prof. Singh delivered an inspiring foundation day lecture on "Rising India: Future of India". He appreciated CSIR-NIScPR's vision to become a globally respected think tank and resource centre for policy research, innovation, and science communication. Prof. Singh emphasised the integral role of science communication in India's journey towards becoming a Viksit Bharat.

Prof. Ranjana Aggarwal, Director, CSIR-NIScPR, emphasised the Institute's dedication to disseminating scientific achievements in all Indian languages. Highlighting the new initiatives of the Institute, Prof. Aggarwal mentioned the concrete outcomes of the Science Media Communication Cell, SVASTIK, Technology Readiness Level efforts and many others. She also stressed the strong focus on language diversity to reach a wider audience. Prof. Aggarwal shared insights into the Institute's prominent role as the host of the National Science Library, the largest in Asia.



Chief Guest Prof. Yogesh Singh, VC, University of Delhi and Member-CSIR Society, delivering the lecture



Prof. Ranjana Aggarwal, Director, CSIR-NIScPR

Key deliberations out of the address by the Director CSIR-NIScPR: Science Media Communication Cell (SMCC) is an innovative initiative bridging the gap between media and science. This cell is designed to enhance the communication of scientific achievements to the public, fostering a better understanding of S&T knowledge in society. NETRA Framework was developed in collaboration with the National Research Development Corporation (NRDC) to assess technology readiness levels. CSIR-NIScPR will play a pivotal

role in certifying technologies for the NRDC, further supporting technological advancements.

Prof. Aggarwal highlighted the Institute's commitment to creating rural livelihoods by leveraging CSIR technology. This initiative will utilise the networks of the Unnat Bharat Abhiyan (UBA) and Vijnana Bharati (VIBHA), aiming to empower rural communities through innovation. In line with Prime Minister Modi's vision, SVASTIK seeks to disseminate scientifically validated traditional knowledge of India. This initiative reflects CSIR-NIScPR's dedication towards preserving and promoting traditional wisdom.

Dr Anil Kothari, Director General of MP Council of Science & Technology, Bhopal, expressed the importance of CSIR-NIScPR becoming a centralised platform for scientific information and Dr Sudesh Kumar Yadav, Director of CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur, participated in the release of CSIR-NIScPR

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Dr Anil Kothari, DG of MP Council of S&T Bhopal, expressed the importance of CSIR-NIScPR becoming a centralised platform for scientific information.

publications and signing of MoUs, including brochures and SVASTIK's communication on the dissemination of traditional knowledge.

Dr Manish Mohan Gore, Scientist, CSIR-NIScPR, moderated the event. Dr Charu Verma, Chief Scientist, CSIR-NIScPR, and Chairperson, Foundation Day Celebrations Committee, proposed the vote of thanks,

On 8 February 2024, as part of the foundation day celebrations, the Institute organised an Open Day by conducting two events simultaneously: Interaction with PhD scholars, Student-Scientist Connect Programme and Poster Presentation Competition for PhD scholars of CSIR-NIScPR.

The Chief Guest was Prof. Deepak Kumar, Member, Research Council of CSIR-NIScPR and formerly Prof. at JNU and Senior Scientist with CSIR-National Institute of Science, Technology and Development Studies (CSIR-NISTADS). He motivated the PhD students of CSIR-NIScPR and highlighted the importance of teaching and research. He said, "Research and

teaching must go together. And to be a good researcher, one must also be a good teacher."

Prof. Ranjana Aggarwal addressed the PhD students at the Student Interaction Meet, saying, "PhD study is a good example of the Guru-Shishya tradition. This research study focuses on the importance of the PhD guide to their students, which is like a parent-child relationship, a bond that remains forever."

After a healthy discussion with PhD students, a poster presentation competition was organised for the PhD students of the CSIR-NIScPR. There was a display of 31 posters on various topics, including Artificial Intelligence (AI), Perception towards Scientific Temper, Analysis of CSIR-JRF Scheme: A Capacity Building and Human Resource Development Programme, Knowledge of Food Labelling for Healthy choices of Food Items, Challenges for Stem Cell Therapy and Implementation in India: Doctor's Perspectives' and Popular Over-the-Top (OTT) Platforms



During the poster presentation competition



During Student-Scientist Connect Programme

for Science Communication – A Review; among others.

Dr Vandana Kalia, Scientist F, DSIR; Dr Meenakshi Singh, Chief Scientist CSIR HQs; and Shri RKS Roushan, CoA, CSIR-NIScPR, evaluated the posters. They were impressed by the students' efforts and expressed their views that events like this are an opportunity to interact with students, see how they work, and know about their future plans.

CSIR-NIScPR's flagship outreach programme, JIGYASA, organised a quiz competition for school students.

During the programme, Prof. Ranjana Aggarwal said in her keynote address, "CSIR is serving as a scientific backbone in our daily lives. From indelible ink for elections to milk powder, they have touched it all and even contributed to the construction of the Ayodhya temple."

Prof. Chetan Singh Solanki Delivers a talk on 'Climate Change' at CSIR-NCL

Prof. Chetan Singh Solanki, acclaimed as the "Solar Man of India" and founder of the Energy Swaraj Foundation, delivered a talk on "Six Points Understanding of Climate Change and Corrective Actions" at CSIR-NCL on 29 January 2024, as part of the CSIR Jigyasa Programme.

Dr Ashish Lele, Director, CSIR-NCL, in his welcome address, described Prof. Solanki as "a man of

climate action and a modern saint who preaches not just by saying, but by doing". He mentioned CSIR-NCL's renewable technologies, such as green hydrogen fuel cells, non-silicon-based photovoltaics, and organic dyes for photon capture, showcasing the Institute's commitment to climate action.

Prof. Solanki, known for his dedication to sustainable practices, began his talk

Prof. Chetan Solanki, founder of the Energy Swaraj Foundation, motivated the students to implement the solar energy boundary conditions of limiting energy consumption and localising production.



Dr Ashish Lele, Director, CSIR-NCL, felicitating Prof. Solanki

The event served as the inaugural event for CSIR-NCL's platinum jubilee year-long celebrations.

enthusiastically, addressing the grave issue of climate change. He highlighted the root causes, emphasising the critical role of energy consumption and carbon emissions. Prof. Solanki explained the intricate and paradoxical relationship between economic growth and climate change by discussing what has changed. Who has changed it? When to correct it? Why has it changed? How to correct it? He motivated the students to implement the solar energy boundary conditions of limiting energy consumption and localising production. He motivated the audience with

his AMG approach for solar energy use – Avoid, Minimise and Generate.

The event also featured the iconic climate clock and the solar bus, symbolising Prof. Solanki's ongoing commitment. The event served as the inaugural event for CSIR-NCL's platinum jubilee year-long celebrations. The session concluded with an interactive Q&A session, reflecting the enthusiasm and inspiration drawn from Prof. Solanki's impactful discourse. It highlights the commitment of CSIR-NCL to fostering awareness and engagement in crucial environmental issues.

CSIR-CDRI Initiates a New Oration Series on Inno Health

CSIR-Central Drug Research Institute (CSIR-CDRI), Lucknow, initiated a new oration series on InnoHealth to foster innovation in Healthcare on 11 January 2024. The institute hosted a thought-provoking oration on the profound impact of Artificial Intelligence (AI) in advancing

healthcare innovations today. The distinguished speaker for the event was Dr Debarka Sengupta, an esteemed Associate Professor in the Computational Biology and Computer Science departments at IIT-Delhi. Dr Sengupta also leads the Infosys Centre for Artificial Intelligence.



Dr Radha Rangarajan, Director, CSIR-CDRI, welcomed Dr Debarka Sengupta and expressed her enthusiasm for the insights that were to follow.

The event focused on unravelling the multifaceted role of AI in accelerating healthcare innovations, a topic of critical relevance in the contemporary medical landscape.

During his engaging talk, Dr Debarka Sengupta delved into how Artificial Intelligence (AI) transforms the healthcare sector. Drawing on his expertise, he highlighted the potential of AI to revolutionise diagnostics, treatment protocols, and drug discovery processes. The talk provided a comprehensive overview of the current landscape and potential future developments, igniting a vibrant discussion among attendees.

Following Dr Sengupta's illuminating presentation, Dr Radha Rangarajan delivered Presidential remarks, emphasising the Institute's commitment to staying at the forefront of technological advancements in healthcare.

Her insights underscored the importance of collaborative efforts in integrating AI into healthcare research and practice.

Concluding the event, Dr Deepak Datta, Principal Scientist, CSIR-CDRI, extended a heartfelt vote of thanks to Dr Sengupta for sharing his expertise and to all participants for their active engagement. Dr Datta reiterated the significance of such intellectual exchange forums in fostering innovation and knowledge dissemination.



Dr Debarka Sengupta from IIIT-Delhi delved into how Artificial Intelligence transforms the healthcare sector.

CSIR-NIO Concludes One Month-long Oceanographic Certificate Course



Participants from Sri Lanka, Mauritius, and Seychelles attended the month-long certificate course.

As an outcome of the maiden Colombo Security Conclave (CSC) Oceanographers and Hydrographers conference held at Goa and Hyderabad in November 2022, CSIR-NIO, Goa, conducted a month-long certificate course in Oceanography, starting from 15 January 2024. Participants from Sri Lanka, Mauritius, and Seychelles attended this course.

During the course, scientific inquiry was made through class discussions and coursework; the participants also discussed the impact of climate change on the Indian Ocean and worldwide. Altogether, 58 CSIR-NIO scientists were involved in teaching and mentoring coursework. In the first half of the day, participants dedicated time to understanding numerous aspects of oceanography and discussed how they interact with one another. Topics covered include marine biology, the chemistry and the physics of ocean water, seafloor geology &

topography, ocean engineering, marine instrumentation, Archaeology, etc. In the afternoon session, participants dedicated time to building expertise in their area of interest. Participants were also taken to other ocean-related institutes in the state to broaden their horizons, such as NIH and NCPOR.

During the welcome address, Prof. Sunil Kumar Singh, Director, CSIR-NIO, spoke about strengthening bilateral partnerships with the littoral nations to understand the Indian Ocean Region.

This was followed by participants sharing what they had learned and insights they gained during the course and the need to collaborate to deepen our understanding of the Indian Ocean.

Later, Prof. Sunil Kumar Singh distributed certificates to the participants. Dr Manguesh Uttam Gauns, Senior Principal Scientist & Head, Biological Oceanography Division, coordinated the course.

CSIR-NIScPR Elevates Science Communication at World Book Fair 2024

In an effort to foster scientific curiosity and awareness, CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi, along with the National Centre for Children's Literature (NCCL), a wing of the National Book Trust (NBT), India, organised an engaging event on science communication at the Children's Pavilion of the World Book Fair 2024 at Pragati Maidan, Delhi on 13 February 2024.

Samarth Khanna, a young naturalist, captivated the audience with an insightful lecture on the importance of ecosystems and natural resource conservation. He motivated children to save nature's resources in their daily lives.

Sachin Narvadia, a science communicator, conducted an exhilarating quiz contest on science, challenging participants and attendees to test their knowledge and curiosity in scientific discovery. The quiz entertained and educated, aligning with CSIR-NIScPR's commitment to making science accessible to all.

Dr Meher Wan, Scientist, CSIR-NIScPR, interacted with young participants and discussed the fascinating world of science. He shared insights into scientists' biographies and achievements, inspiring young minds to explore the realms of scientific possibilities.

The event also featured a unique science Cartoon Competition, adding a creative flair to the



Science Communicator Sachin Narvadia conducting a quiz on science

science communication initiative. Participants expressed scientific concepts through imaginative and artistic interpretations, showcasing the diverse ways science can be communicated beyond traditional methods. Many children participated in it, and the winners received the NIScPR publications.

CSIR-NIScPR remains at the forefront of promoting scientific achievements, and the World Book Fair 2024 served as a platform to further this mission. The event was coordinated by Dr RS Jayasomu, Chief Scientist at CSIR NIScPR and Dr Manish Mohan Gore, Scientist, CSIR NIScPR.



Children during the Science Cartoon Competition

CSIR-NCL Honoured as Top Patent Driven Research Organisation

CSIR-National Chemical Laboratory (CSIR-NCL), Pune, has won the ASSOCHAM 3rd IP Excellence Awards, 2024, as the Top Patent Driven Research Organisation. The award is based on factors inter alia number of patents granted, diversity in patent portfolio, rate and impact of technology commercialisation, contribution to SDG and efforts to improve the country's Intellectual Property (IP) ecosystem.

The award was given in the 3rd IP Excellence Award ceremony as part of the Global IP Conclave held on 6 February 2024 in New Delhi.

The award was received by Dr Nitin Shukla, Head, Intellectual Property Group, CSIR-NCL, at the hands of Hon'ble Justice Mr Anish Dayal, Delhi High Court; Prof. Unnat P Pandit, Controller General of Patents, Designs and Trademarks (CGPDTM), GOI; Mr John Cabeca, US IP Counsel for South Asia; Mr Hiroki Watanabe, Director IPR and Director IP Attache for



Dr Nitin Shukla, while receiving the award

South Asia, JETRO; Dr Shirshendu Mukherjee, Mission Director, Grand Challenges India, BIRAC; Dr Hemang Shah, Co-chairperson, ASSOCHAM IPR Council, India Engineering Lead, Qualcomm; and Mr Pravin Anand, Chairperson, ASSOCHAM National Council on IPR and Managing Partner, Anand and Anand.

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